

Iowa Department of Public Health



Disability Status in Iowa

Office of Disability, Injury and Violence Prevention

Division of Behavioral Health

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Executive Summary

Disability Status in Iowa presents information on the prevalence of Iowans with disabilities and comorbidity conditions. The American Community Survey (ACS), an ongoing survey of the U.S. Census Bureau survey, defines disability as an affirmative response to one of six questions listed below:

- Is this person deaf or does he/she have serious difficulty hearing?
- Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?
- Because of a physical, mental or emotional condition, does this person have serious difficulty concentrating, remembering or making decisions?
- Does this person have serious difficulty walking or climbing stairs?
- Does this person have difficulty dressing or bathing?
- Because of a physical, mental or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor's office or shopping?

The Behavioral Risk Factor Surveillance System (BRFSS) definition of disability status (adult population ages 18 and older) is based on the participants' positive response to one of two specific questions that ask activity limitation due to any health problem and the use of equipment.

- The first question asks whether the participant was limited in any way in any activities because of physical, mental or emotional problems.
- The second asks whether the participant has any health problem that required the use of special equipment, such as a cane, a wheelchair, a special bed or telephone.

Disability affects all Iowans regardless of race/ethnicity and socio-economic status. Whenever necessary, Iowans with disabilities were compared to Iowans without disabilities. The *Disability Status in Iowa* report used the ACS and BRFSS data from 2005-2014.

Key Findings

The ACS data estimates that between 2008-2014, the overall rate of Iowans with disabilities was 12 percent, or about 373,137 people. The following describes unique characteristics of these Iowans and compares Iowans with and without disabilities

- The ACS data show that between 2008-2014, Iowans aged 75 and older had the highest rate (46 percent) of disability. People aged 21-64 had the lowest rates of disabilities compared to people under the age of 20, 65-74, and 75 and older.
- Among Iowans with disabilities, 61 percent of females and 53 percent of males had one single disability. For people with two disability types, the rates were similar for both males (22 percent) and females (21 percent).
- Males were more likely to have a disability at a younger age compared to their female counterparts.
- Native Americans or Alaska Natives had the highest rate of disability followed by blacks, with whites, Hispanics and Asians at lower rates.
- Iowans with disabilities were more likely to be separated, divorced or widowed. In addition, they were less likely to have graduate school education than Iowans without disability.
- Iowa veterans were more likely to report a disability compared to their non-veteran counterparts.

- Iowans with disabilities were more likely to report a depressive disorder. In Iowa, people with disabilities aged 45-64 are more likely to report a depressive disorder compared to people aged 18-44 and 65 and older.
- In Iowa, people with disabilities were more likely to smoke and less likely to drink than people without disabilities.
- People with disabilities in Iowa were more likely than their counterparts without disabilities to report chronic health conditions such as high blood pressure, coronary heart disease, stroke and diabetes.

Conclusion

Many Iowa residents with disabilities have lower educational attainment, higher rates of unemployment and lower earnings from work than their counterparts without disabilities. Iowans with disabilities are more likely to experience problems with weight, limited physical activity, comorbidity conditions such as arthritis, diabetes, coronary heart disease and stroke, and fair or poor health. This report highlights the need for public health efforts to improve the health of Iowans with disabilities. The data presented in this report could serve as a resource for health and disability professionals across Iowa to improve the health status and overall well-being of Iowans with disabilities.

Introduction

Many Iowans have a disability. The ACS defines disability as a report of one or more of the six disabilities identified in the ACS surveys. The disability questions look at the following elements:

- Hearing Difficulty
 - Vision Difficulty
 - Cognitive Difficulty
 - Mobility Difficulty
 - Self-Care Difficulty
 - Independent Living Difficulty
- } asked of all ages
- } asked of persons ages 5 or older
- } asked of persons ages 15 or older

The BRFSS classifies an individual as having a disability based on answers to two of the survey questions. These questions focus on whether:

- an individual experiencing limitations in any activities because of physical, mental or emotional problems
- an individual has any health problem that requires the use of special equipment, such as a cane, a wheelchair, a special bed or a special telephone

According to the Centers for Disease Control and Prevention (CDC, 2013), 22 percent of adults in the United States have some type of disability and nearly 13 percent of those with disabilities have serious difficulty walking or climbing stairs. Americans with disabilities are more likely to be obese, smoke, have high blood pressure, and less likely to participate in physical activities (CDC, 2013). In Iowa, the prevalence of disability is 12 percent (Figure 1). The prevalence of disability is higher among Native Americans or Alaska Natives, and Blacks.

This report provides general information about disability in Iowa based on the ACS and BRFSS data. Iowans with disabilities are more likely to report fair or poor health, poor physical health, and high prevalence of at least one day of poor health per month. Moreover, Iowans with disabilities are more likely to report the following comorbidity conditions:

- Depression
- Arthritis
- Obesity
- Diabetes
- High Blood Pressure
- Coronary Heart Disease
- Stroke

This report highlights the association between disability and potential comorbidity conditions among Iowans. This report also provides information regarding the access to health care, educational attainment, employment and marital status among individuals with disabilities. These factors have been shown to impact people with disabilities more than their counterparts.

This report is produced by the Iowa Department of Public Health's Office of Disability, Injury & Violence Prevention. The Office of Disability, Injury & Violence Prevention coordinates unintentional injury programs, programs that aim to prevent or reduce interpersonal violence, and programs that work to reduce health disparities and health access among people with disabilities in Iowa. The office also provides epidemiological support for disability, injury and violence data. The office is supported by

grants from the Centers for Disease Control & Prevention, the Iowa Department of Justice, the Administration for Community Living, and the Substance Abuse and Mental Health Services Administration.

Methodology

Disability Status in Iowa used two data sources: the ACS and BRFSS survey. The report is based on the 2005-2014 data from the ACS and BRFSS. Table 2, which presents information on people with a disability by region used the 2013-2014 data. Although this report used primarily the 2008-2014 data, due to small numbers for counties, Table 3 presents BRFSS data from 2005 through 2014 for information about the disability status by county. BRFSS data were used in Table 2 and 3 because ACS data for regional and county level were unavailable. Differences may be seen between ACS and BRFSS disability prevalence estimates because of a limitation of the BRFSS survey methodology, sampling, and non-response bias associated with disability (Gettens et al., 2015). ACS data are not available at the county level, so BRFSS is used to estimate county disability prevalence.

Disability Status in Iowa

Demographics

Table 1 illustrates the demographic distribution among Iowans with and without disabilities. From 2008-2014, 4 percent of Iowans ages 20 and younger reported a disability compared to 96 percent of those who reported no disability. Disability status varied by race/ethnicity among Iowans. Those identifying as Native American or Alaska Native reported the highest rate of disability, and Asians reported the lowest rate of disability. The rate of disability was similar for males and females. Veterans had a higher rate compared to non-veterans.

Table 1: Percent of Disability Status in Iowa by Age, Sex, Race/Ethnicity, and Veteran Status, ACS, 2008-2014

	With a Disability (%)	Without a Disability (%)
Iowa		
All Ages	12	88
Age Group (in years)		
<21	4	96
21-64	10	90
65-74	26	74
75+	46	54
Sex		
Male	12	88
Female	12	88
Race/Ethnicity		
White	12	88
Black/African American	14	86
Hispanic	6	94
Asian	4	96
Native American or Alaska Native	18	82
Other	8	92

(table continued)

(table continued from Page 1)

	With a Disability (%)	Without a Disability (%)
Veteran Status		
Veteran	16	84
Non-veteran	12	88

Disability Prevalence

Figure 1 illustrates the prevalence of lowans with a disability compared to the U.S. Over the past seven years, the percentages of disability for all lowans was similar to that of the U.S. percentages.

Figure 1: Prevalence of People with Disabilities in Iowa and the U.S., ACS, 2008-2014

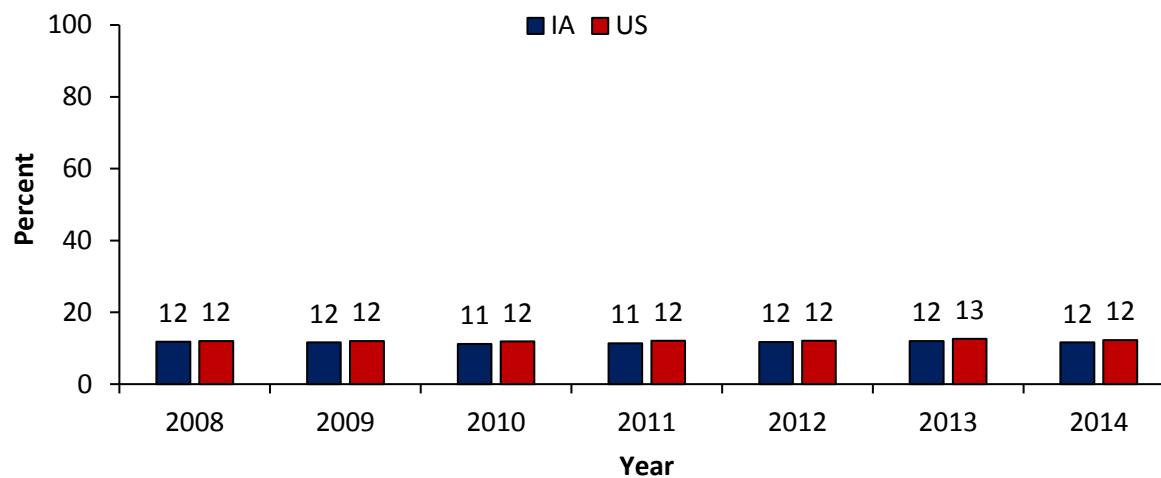


Figure 2 illustrates the prevalence of disability by age and gender. As lowans age, the percentage of lowans with disabilities increases. Figure 2 illustrates that 1 percent of lowans under 4 years old had a disability. For those ages 5-15, the rates were 6 percent for males and 4 percent for females (Figure 2). For ages 21-64, the rates were 10 percent for both genders (Figure 2). For lowans ages 65-74, the rate of disability was higher among males compared to their counterparts. For people ages 75 and older, 46 percent of both males and females had a disability.

Figure 2: Prevalence of Disability by Age and Gender, ACS, 2008-2014

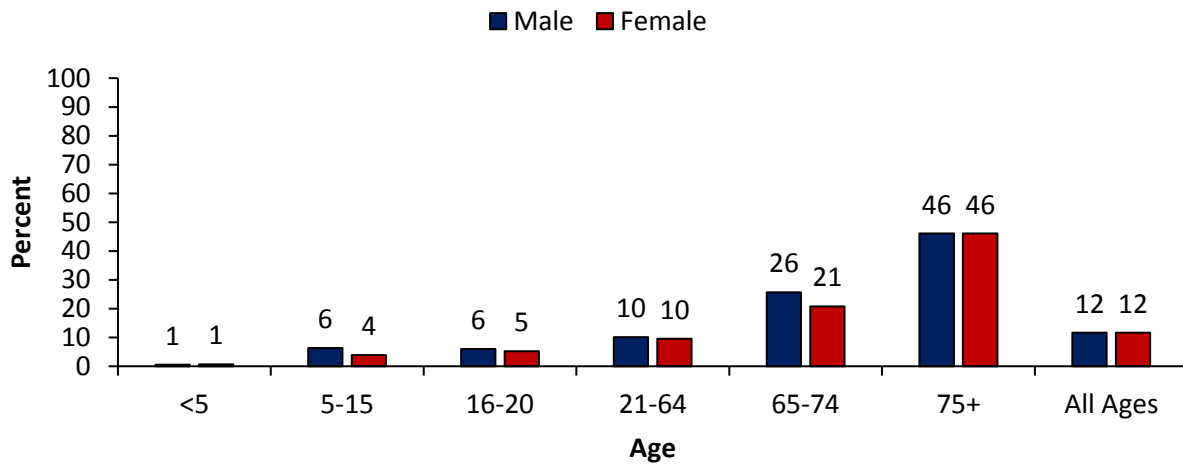
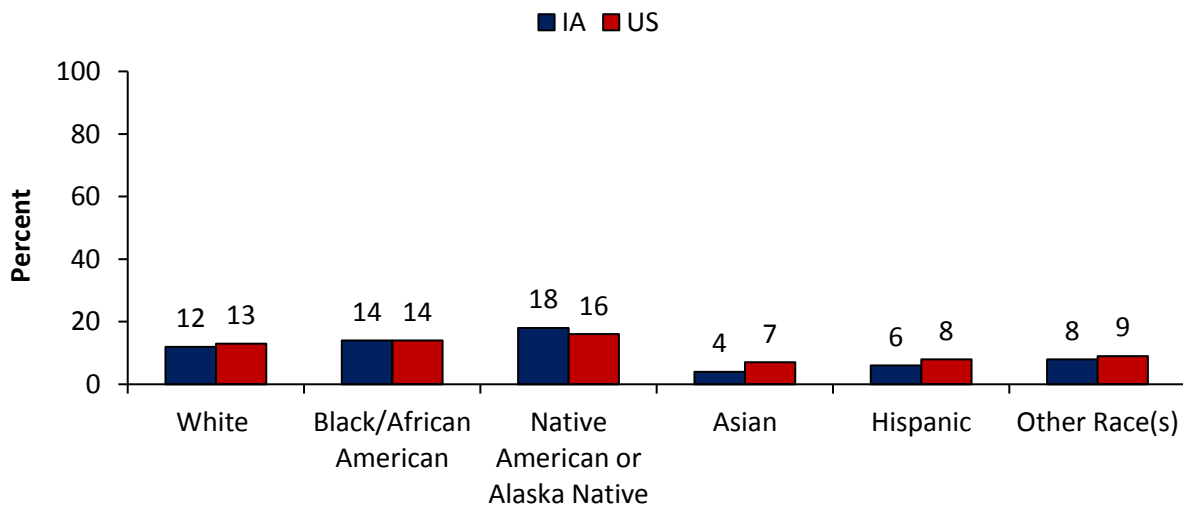


Figure 3 illustrates the prevalence of disability by race/ethnicity in Iowa and the U.S. The prevalence of disability differs by race/ethnicity in Iowa and nationally. Between 2008-2014, the percentage of Asians with disability in Iowa was 4 percent compared to 7 percent for Asians in the U.S. (Figure 3). The percentage of persons with a disability was 14 percent among Black/African Americans in Iowa and the U.S. compared to 12 percent of Whites (Figure 3). For other race(s) in Iowa, the rate of disability was 8 percent compared to 9 percent for other race(s) in the U.S. (Figure 3). Native Americans or Alaska Natives had the highest percentage of disability in Iowa and the U.S.

Figure 3: Prevalence of Disability by Race/Ethnicity, IA vs. U.S., ACS, 2008-2014



Disability Characteristics

Figure 4 illustrates the percentage of lowans with one, two, three, four, and five or more disabilities. Among lowans with disabilities, 53 percent of males and 61 percent of females had one disability type (Figure 4). For people with two disability types, the rates were similar for both males and females. The rate of disability type was 4 percent for males and 2 percent for females with five or more disability types (Figure 4).

Figure 4: Percent of the Number of Disability Type, ACS, 2008-2014

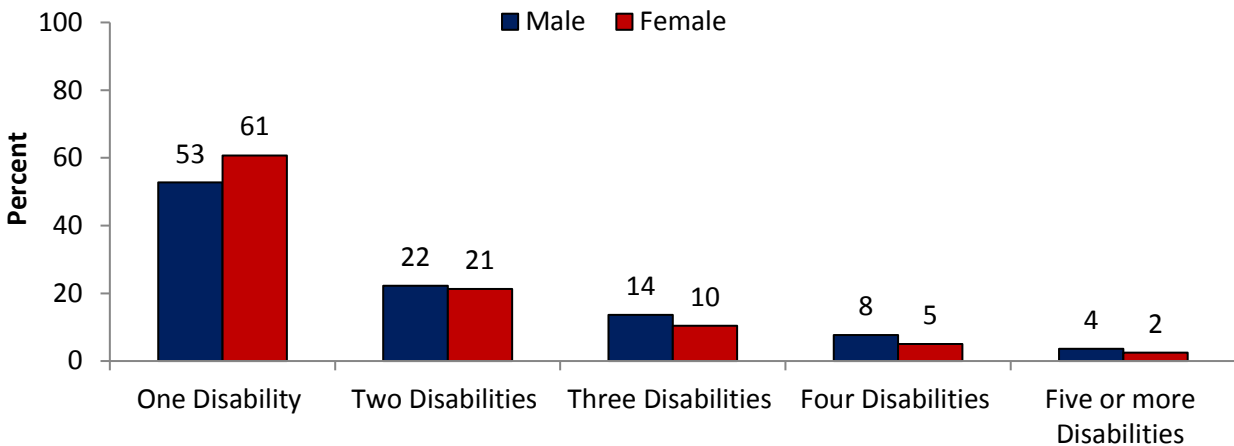


Figure 5 illustrates the percentage of the number of disability types by age. People ages 5-17 years had the highest rate of one disability type compared to people ages 65 and older. Twenty-five percent of lowans ages 18-44 had had two disability types compared to 15 percent of lowans ages 5-17 years (Figure 5). The percentage of lowans with five or more disability types was 5 percent for people ages 65 and older and 1 percent for people ages 5-17 years (Figure 5).

Figure 5: Percent of the Number of Disability Types by Age, ACS, 2008-2014

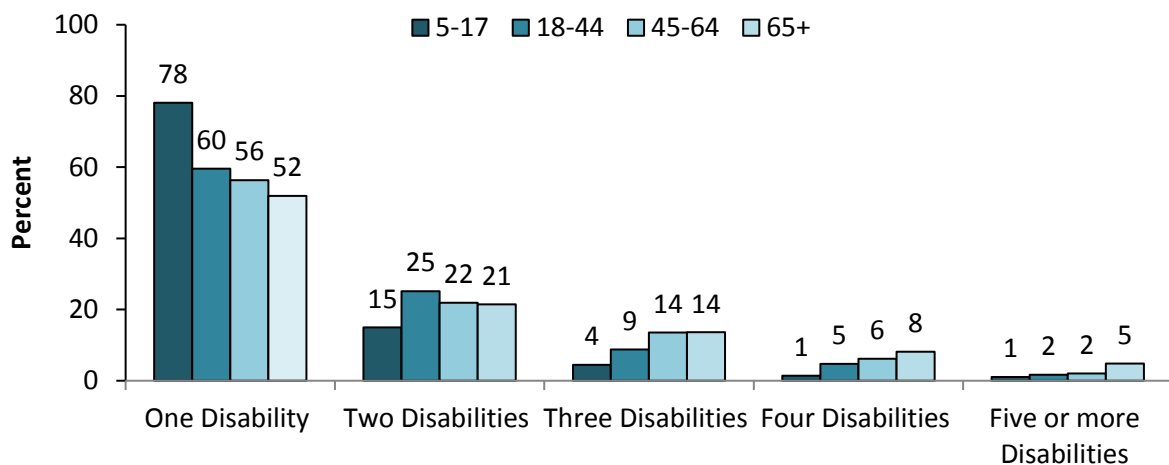
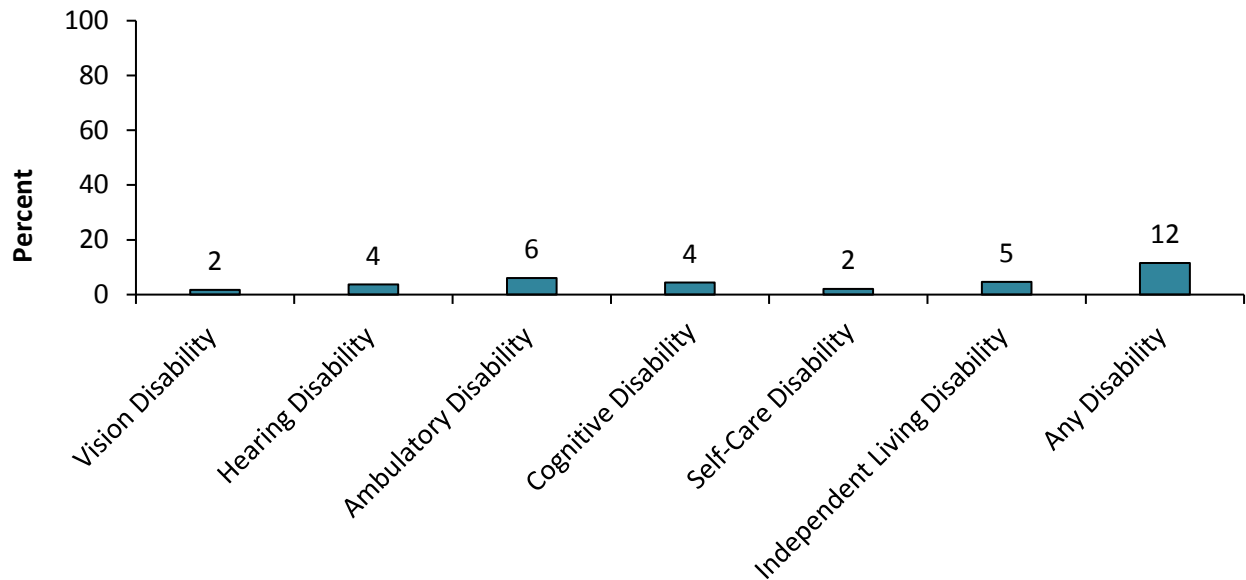


Figure 6 illustrates the prevalence of disability by type. The six types of disability the ACS asks about include vision, hearing, mobility, self-care and independent living (see Appendix B for detailed information). Between 2008-2014, 12 percent of Iowans had any disability. In Iowa, 2 percent of people had a vision difficulty; 4 percent had a hearing difficulty; 6 percent had an ambulatory difficulty; 4 percent had a cognitive difficulty; 2 percent had a self-care difficulty; and 5 percent had an independent living difficulty (Figure 6).

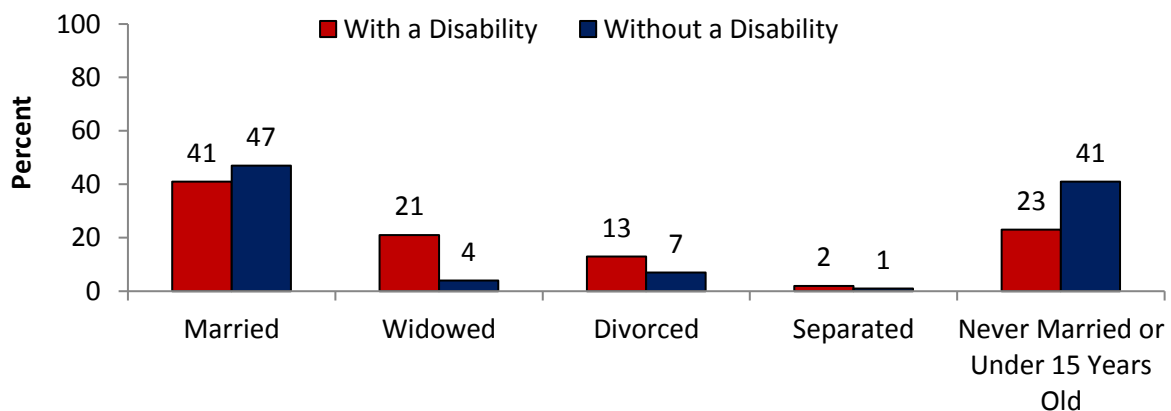
Figure 6: Prevalence of Disability by Disability Type, ACS, 2008-2014



Marital Status

As illustrated by Figure 7, marital status of Iowans with disabilities differs from Iowans without disabilities. Iowans with disabilities were more likely to be divorced compared to those without disabilities. Iowans with disabilities were less likely to be married compared to Iowans without disabilities. Between 2008-2014, 21 percent of Iowans with disabilities were widowed compared to 4 percent of Iowans without disabilities (Figure 7). People with disabilities were more likely to be separated compared to those without disabilities.

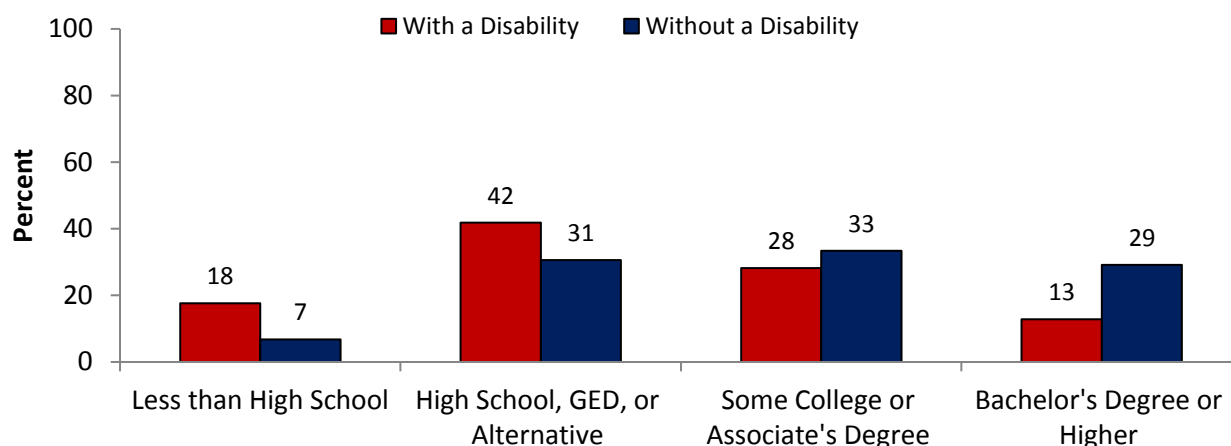
Figure 7: Marital Status by Disability Status, ACS, 2008-2014



Educational Attainment

Figure 8 illustrates educational attainment by disability status. Between 2008-2014, 18 percent of Iowans with disabilities had less than a high school education (Figure 8). Iowans with disabilities were more likely to have a high school, GED or alternative educational diploma compared to Iowans without disabilities. Only 13 percent of Iowans with disabilities had bachelor's degree or higher compared to 29 percent of Iowans without disabilities.

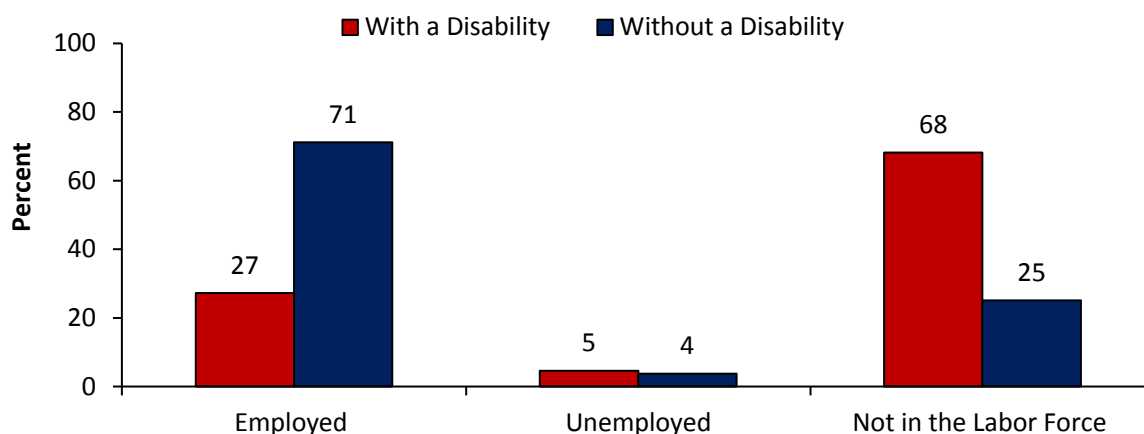
Figure 8: Educational Attainment by Disability Status, ACS, 2008-2014



Employment by Disability Status

Figure 9 illustrates employment status by disability status. Iowans with disabilities were markedly less likely to be employed compared to those without disabilities. Figure 9 shows that only 27 percent of Iowans with disabilities were employed compared to 71 percent of Iowans without disabilities.

Figure 9: Employment Status by Disability Status, ACS, 2008-2014



Annual Earnings from Work

Figure 10 illustrates the annual earnings from work by disability types. Disability status is associated with less earnings from work. The median annual earnings from work for lowans (ages 21 and older) with any disabilities was 11 percent less than for lowans without disabilities. lowans with an independent living disability earn 30 percent less compared to lowans without a disability (Figure 10).

Figure 10: Median Annual Earnings from Work by Disability Types, ACS, 2008-2014

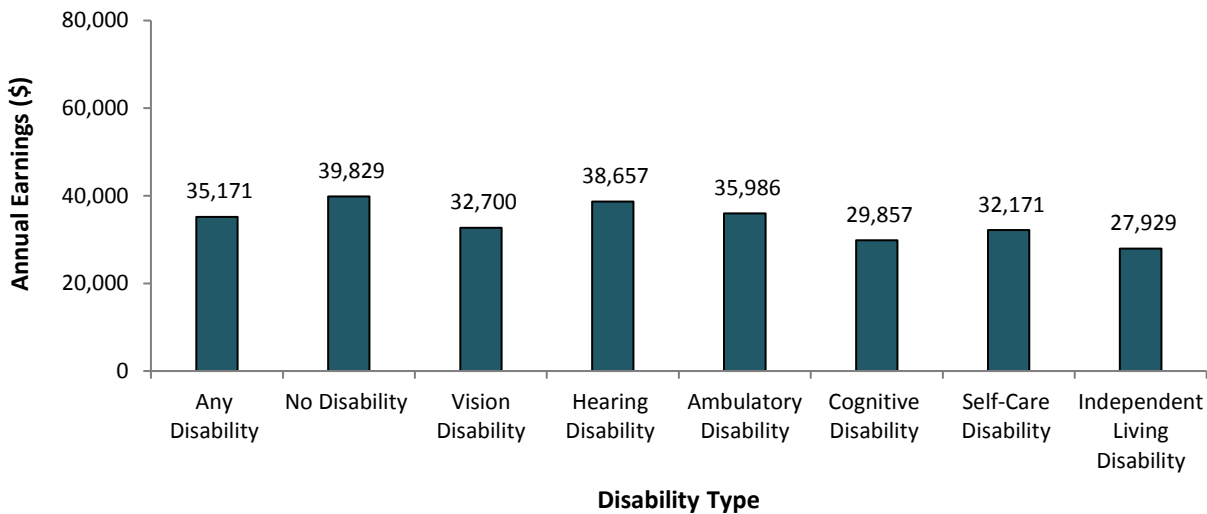
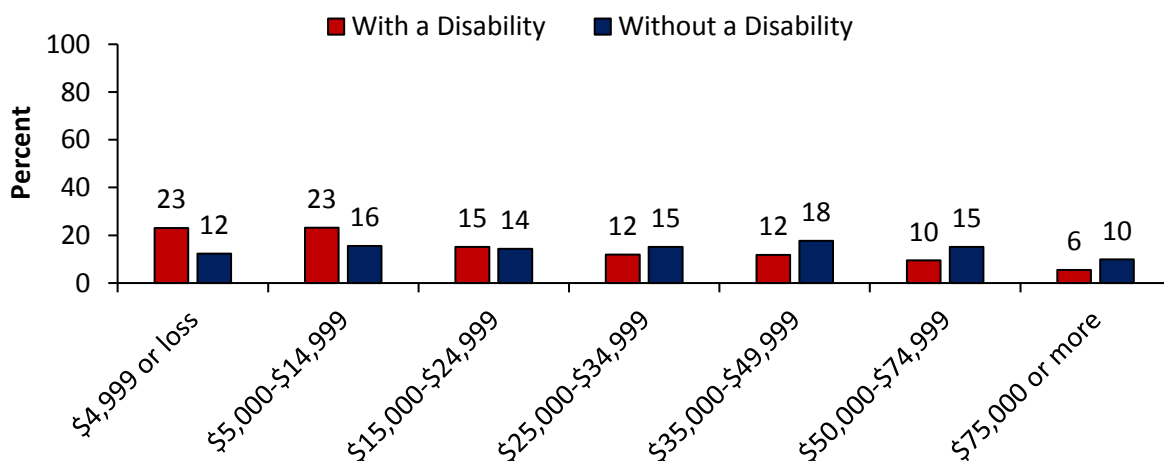


Figure 11 illustrates the annual earnings from work by disability status. Between 2008-2014, only 6 percent of lowans with disabilities earned \$75,000 or more compared to 10 percent of lowans without disabilities (Figure 11).

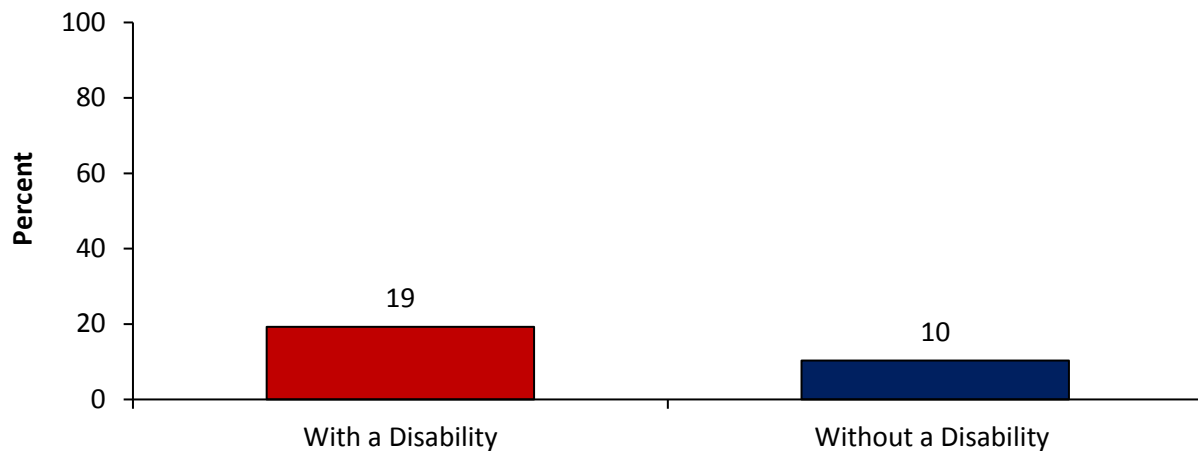
Figure 11: Annual Earnings from Work by Disability Status, ACS, 2008-2014



Poverty

Figure 12 illustrates the percentage of Iowans with and without disabilities who live below poverty level. Between 2008-2014, 19 percent of Iowans with a disability lived below the poverty level compared to 10 percent of Iowans without a disability (Figure 12).

Figure 12: Percent of People With and Without a Disability Who Live below Poverty Level, ACS, 2008-2014



Comorbidity Conditions

Depression

Figure 13 illustrates the prevalence of depressive disorder among Iowans with and without a disability. Depression is a serious mental illness and has been shown to be more prevalent in people with disabilities. Between 2008-2014, 5 percent of Iowans with disabilities were depressed all or most days, compared to only 1 percent of their counterparts without disabilities. (Figure 13).

Figure 13: Prevalence of Depressive Disorder by Disability, BRFSS, 2008-2014

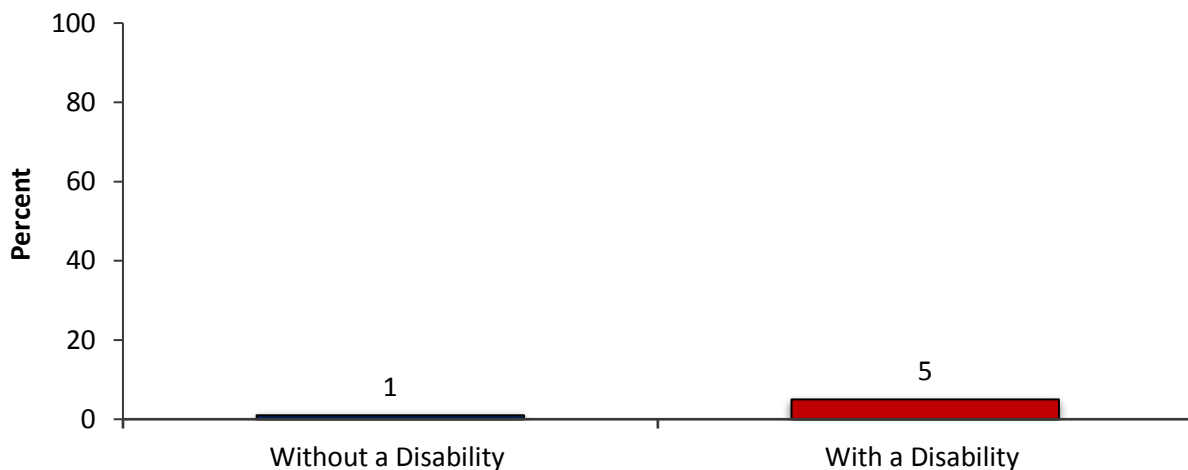
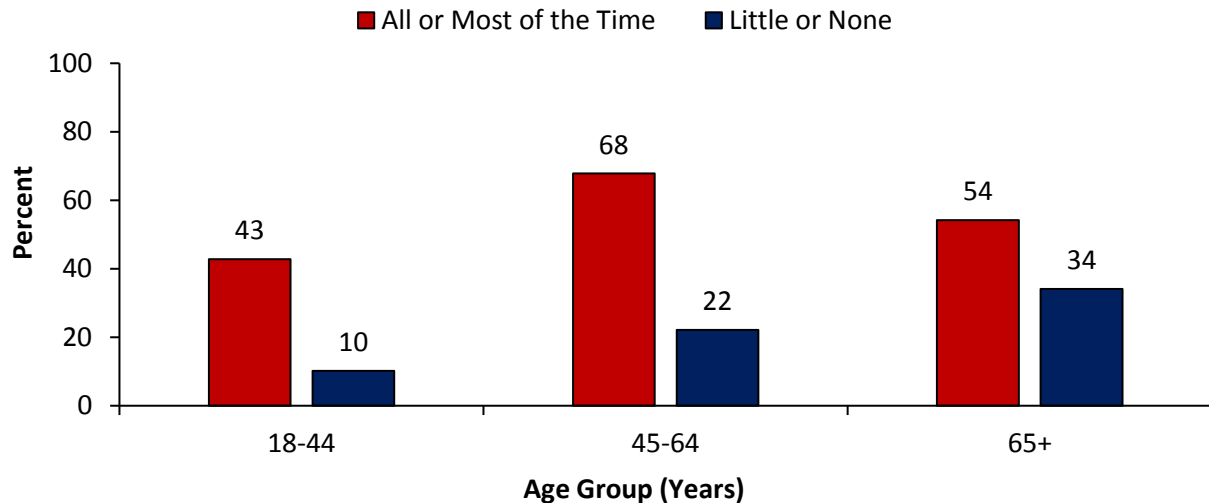


Figure 14 illustrates the prevalence of depressive disorder among Iowans by age and disability. In Iowa, well over half of people ages 45-64 who reported a depressive disorder had a disability. Iowans ages 18-44 with a depressive disorder were less likely to report a disability compared to people ages 45-64 (Figure 14).

Figure 14: Prevalence of Depressive Disorder by Age and Disability, BRFSS, 2008-2014



Arthritis

Arthritis conditions affect many Iowans with disabilities. In Iowa, 46 percent of people who were diagnosed with arthritis conditions had a disability (Figure 15). Twelve percent of Iowans who reported no arthritis conditions had a disability (Figure 15).

Figure 15: Prevalence of Arthritis by Disability, BRFSS, 2008-2014

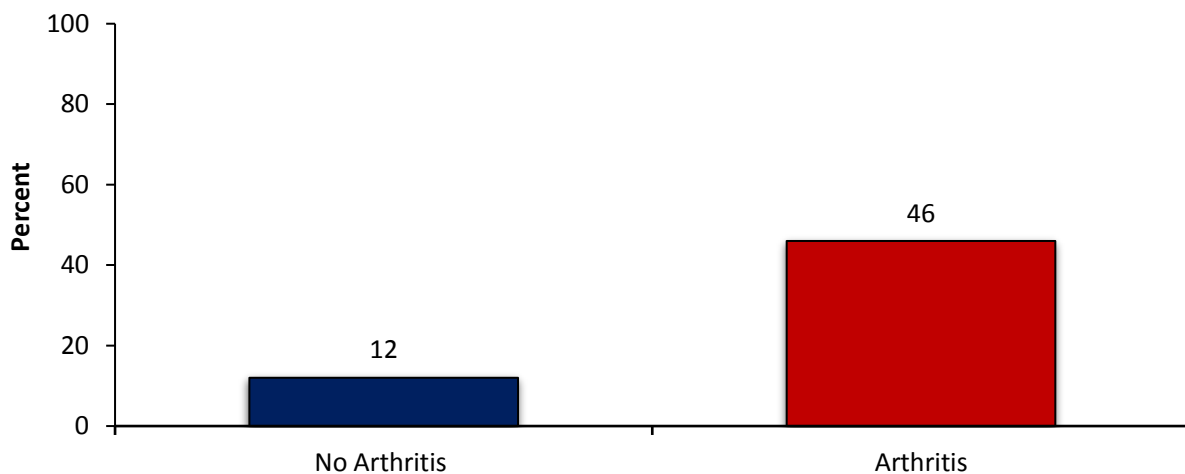
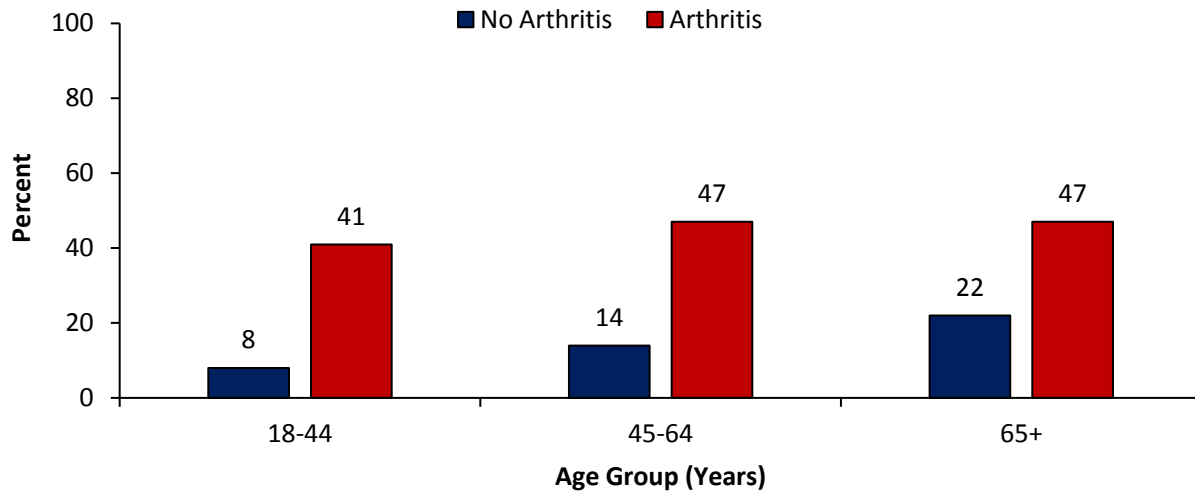


Figure 16 illustrates arthritis condition and age by disability. Arthritis conditions were more common among older lowans with a disability. Forty-seven percent of lowans ages 65 and older with arthritis had disabilities compared to 22 percent of lowans with similar ages who had no disabilities (Figure 16). Between the ages of 18-44, 41 percent of lowans with arthritis had disabilities compared to 8 percent of those without arthritis conditions.

Figure 16: Prevalence of Arthritis by Age and Disability, BRFSS, 2008-2014



Obesity

Figure 17 illustrates disability by weight. Overweight (BMI between 25-29.9) and obesity (BMI between 30-99.8) affect many lowans who have disabilities. Between 2008-2014, 35 percent of the general population was overweight and 30 percent was obese (BRFSS, 2008-2014). lowans who reported that they were not overweight or obese had a disability prevalence of 15 percent, whereas those who reported that they were overweight or obese had a disability prevalence of 23 percent (Figure 17).

Figure 17: Prevalence of Disability by Weight, BRFSS, 2008-2014

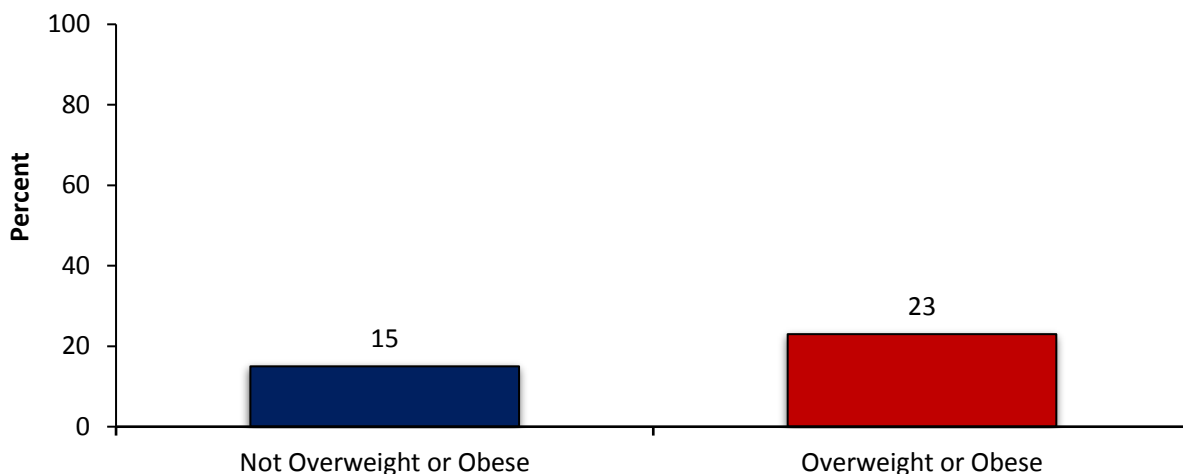
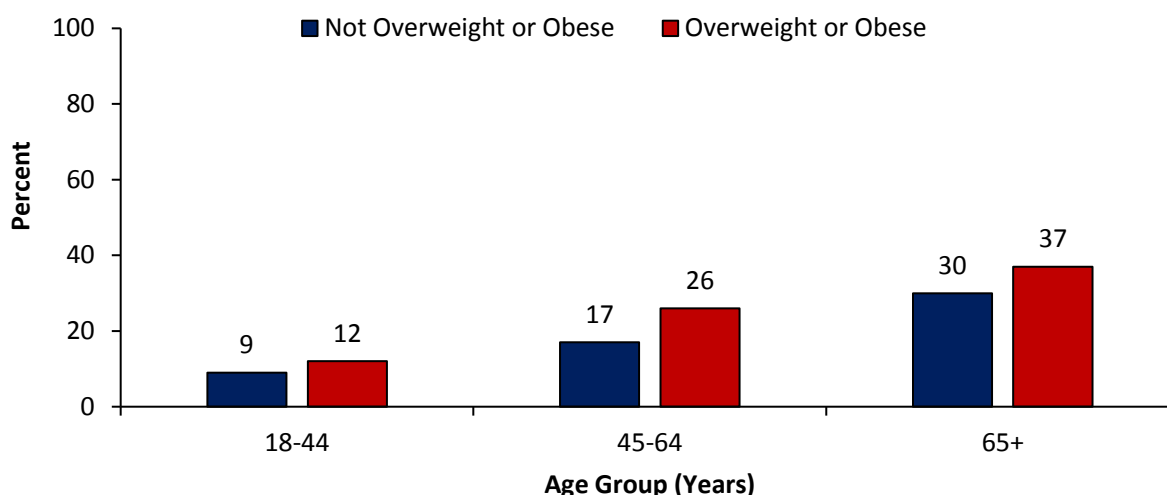


Figure 18 illustrates the prevalence of disability by age and weight. Both weight and age play a significant role in disability. Iowans ages 18-44 who were overweight or obese had a disability prevalence of 12 percent (Figure 18). Iowans ages 65 and older who were overweight or obese had a disability prevalence of 37 percent compared to a disability prevalence of 30 percent for those who reported that they were not overweight or obese (Figure 18).

Figure 18: Prevalence of Weight by Age and Disability, BRFSS, 2008-2014



Diabetes

Figure 19 illustrates the prevalence of disability by diabetes status. Between 2008-2014, Iowans who reported a diabetic condition had a disability prevalence of 46 percent (Figure 19). Alternatively, Iowans who reported they were not diabetic had a disability prevalence of 18 percent (Figure 19).

Figure 19: Prevalence of Diabetes by Disability, BRFSS, 2008-2014

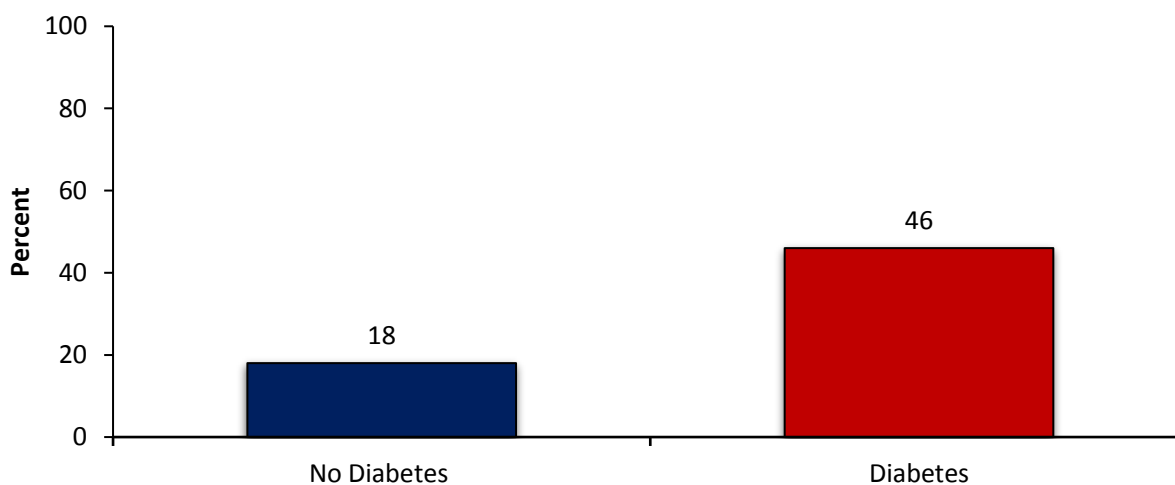
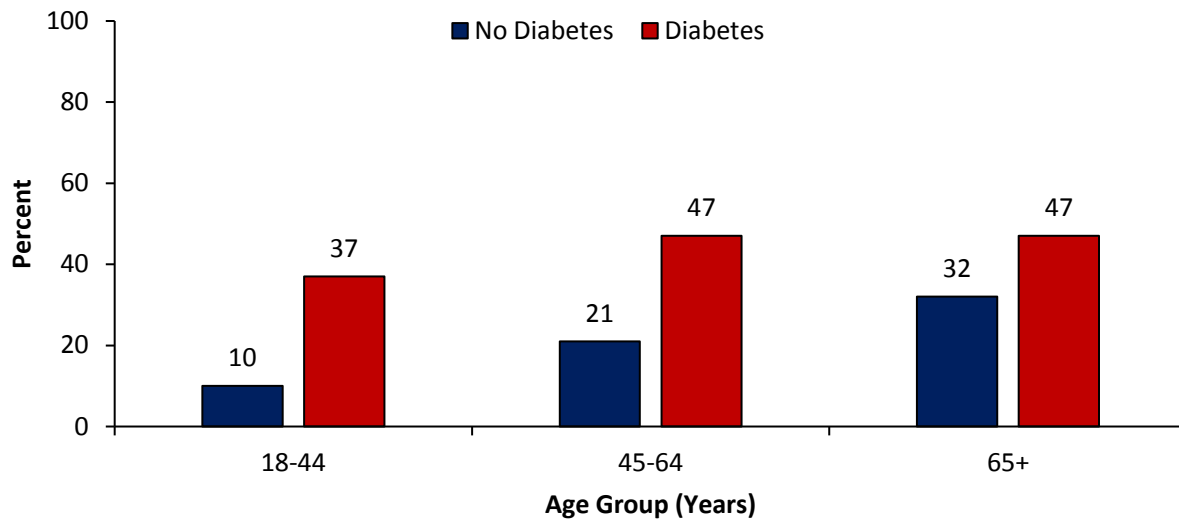


Figure 20 illustrates the prevalence of disability by age and diabetes status. Iowans ages 18-44 who reported a diabetes condition had a disability prevalence of 37 percent (Figure 20). For Iowans ages 65 and older who reported a diabetes condition, they had a disability prevalence of 47 percent, which is similar to Iowans ages 45-64 (Figure 20).

Figure 20: Prevalence of Diabetes Age and Disability, BRFSS, 2008-2014



High Blood Pressure

Figure 21 illustrates the prevalence of disability by blood pressure status. Between 2008-2014, Iowans who reported a high blood pressure had a disability prevalence of 35 percent (Figure 19). Iowans who reported that their blood pressure was not high had a disability prevalence of 14 percent (Figure 21).

Figure 21: Prevalence of High Blood Pressure by Disability, BRFSS, 2008-2014

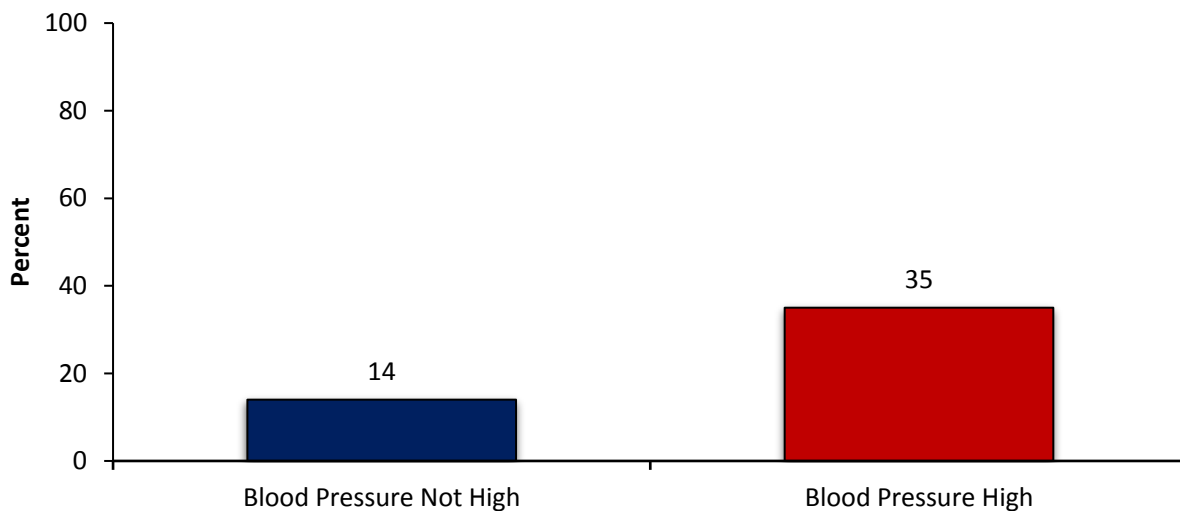
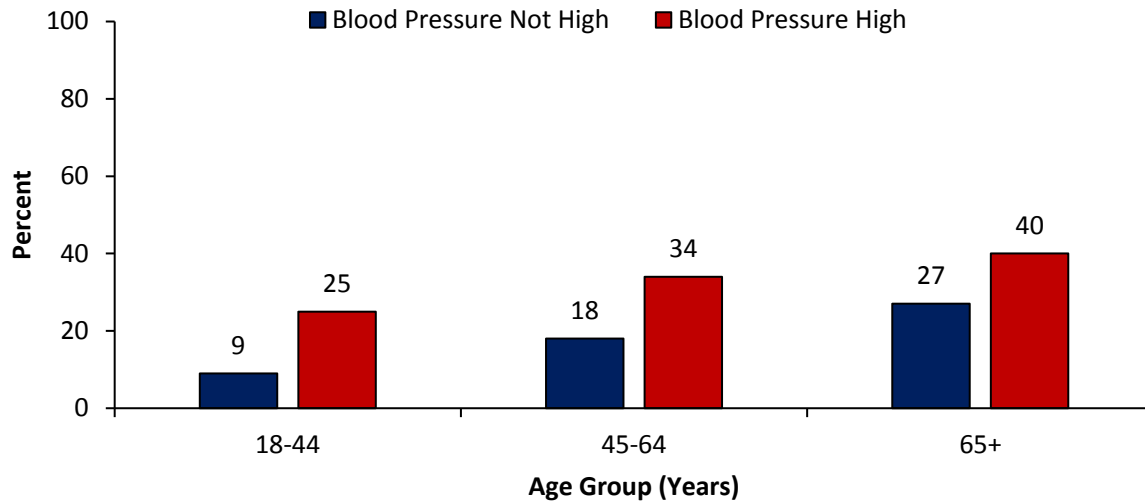


Figure 22 illustrates the prevalence of disability by age and blood pressure status. Iowans ages 18-44 who reported a high blood pressure had a disability prevalence of 25 percent (Figure 22). People ages

45-64 who reported a high blood pressure had a disability prevalence of 34 percent compared to those who reported no high blood pressure (Figure 22). Iowans ages 65 and older who reported a high blood pressure had a disability prevalence of 40 percent (Figure 22).

Figure 22: Prevalence of High Blood Pressure by Age and Disability, BRFSS, 2008-2014



Coronary Heart Disease

Figure 23 illustrates the prevalence of disability by coronary heart disease status. Between 2008-2014, Iowans who reported coronary heart disease had a disability prevalence of 53 percent (Figure 23). Iowans who reported no coronary heart disease had a disability prevalence of 19 percent (Figure 23).

Figure 23: Prevalence of Disability by Coronary Heart Disease Status, BRFSS, 2008-2014

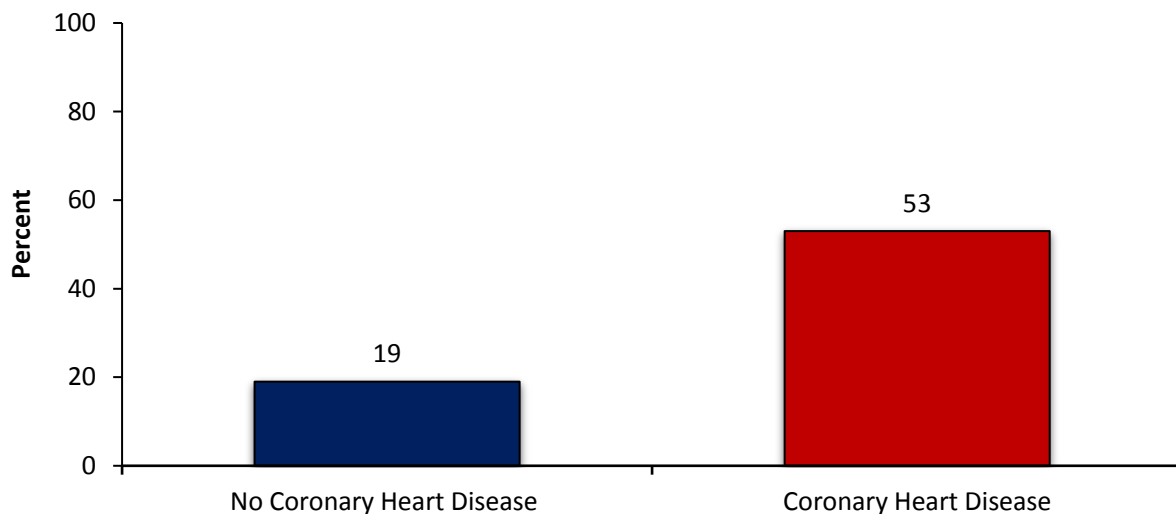
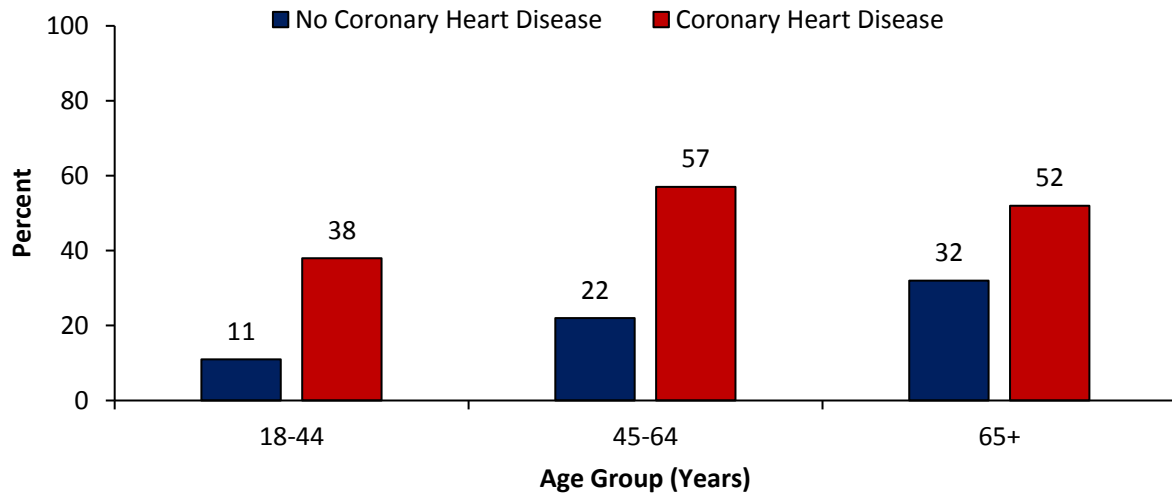


Figure 24 illustrates the prevalence disability by age and coronary heart disease status. Iowans ages 18-44 who reported coronary heart disease had a disability prevalence of 38 percent (Figure 24). People ages 45-64 who reported coronary heart disease had a disability prevalence of 57 percent (Figure 24). Iowans ages 65 and older who reported coronary heart disease had a disability prevalence of 64 percent compared to 32 percent among their counterparts Iowans without a coronary heart disease (Figure 24).

Figure 24: Prevalence of Disability by Age and Coronary Heart Disease Status, BRFSS, 2008-2014



Stroke

Figure 25 illustrates the prevalence of disability by stroke history. Stroke affects many Iowans, especially those with disabilities. Between 2008-2014, Iowans who reported stroke had a disability prevalence of more than 50 percent (Figure 25). Among Iowans who reported no stroke the prevalence of disability was 19 percent (Figure 25).

Figure 25: Prevalence of Disability by Stroke History, BRFSS, 2008-2014

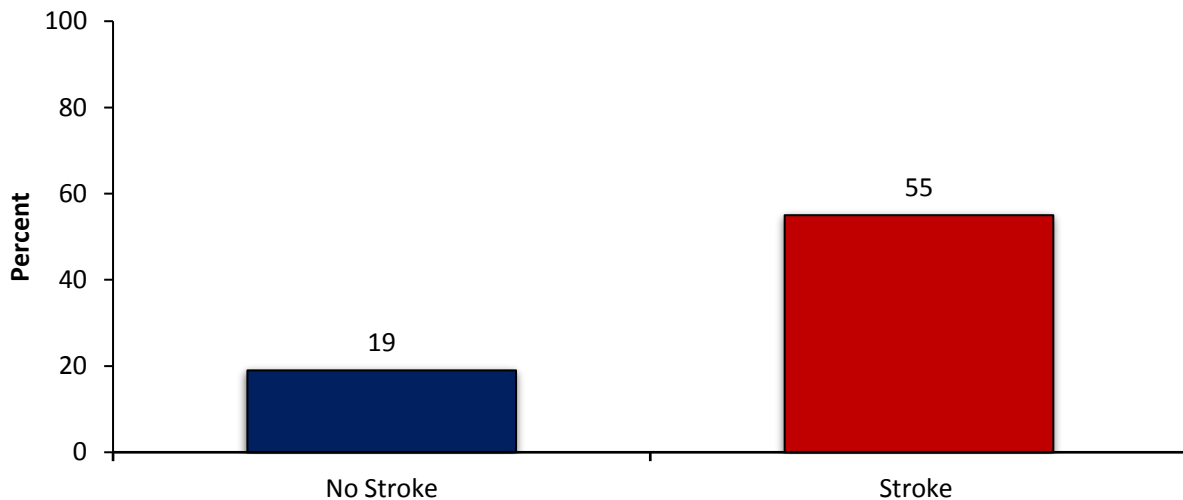


Figure 26 illustrates the prevalence of disability by age and stroke history. Iowans ages 18-44 who reported stroke had a disability prevalence of 42 percent (Figure 26). People ages 45-64 who reported stroke had a disability prevalence of 62 percent (Figure 26). Iowans ages 65 and older who reported stroke had a disability prevalence of more than 54 percent compared to 33 percent among their counterparts Iowans without a history of stroke (Figure 26).

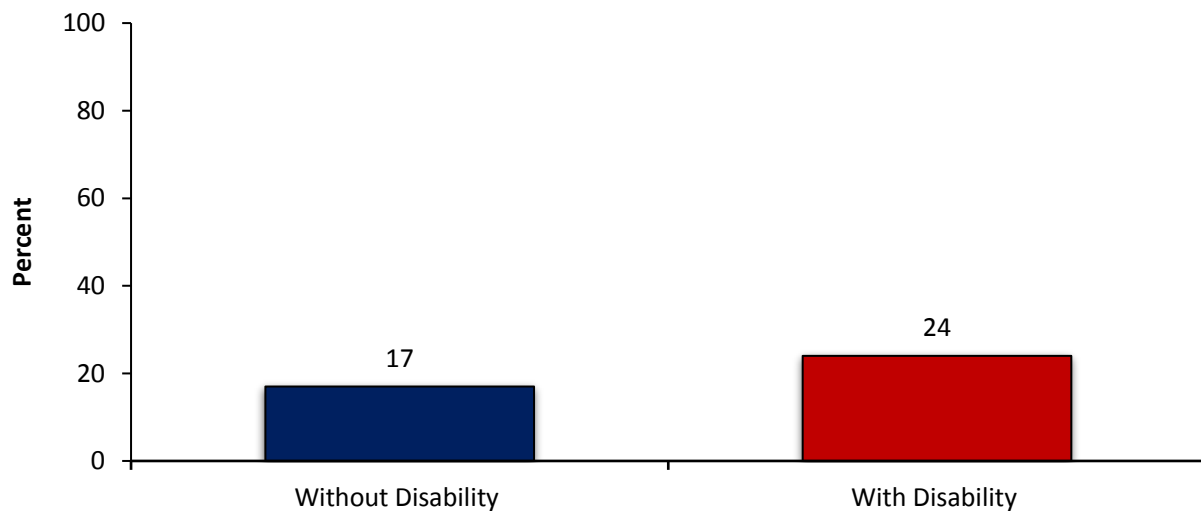
Figure 26: Prevalence of Disability by Age and Stroke History, BRFSS, 2008-2014



Smoking

Figure 27 illustrates the prevalence of smoking by disability. Between 2008-2014, more than 24 percent of Iowans with a disability were smokers (Figure 27). Iowans without a disability reported a smoking prevalence of 17 percent (Figure 27).

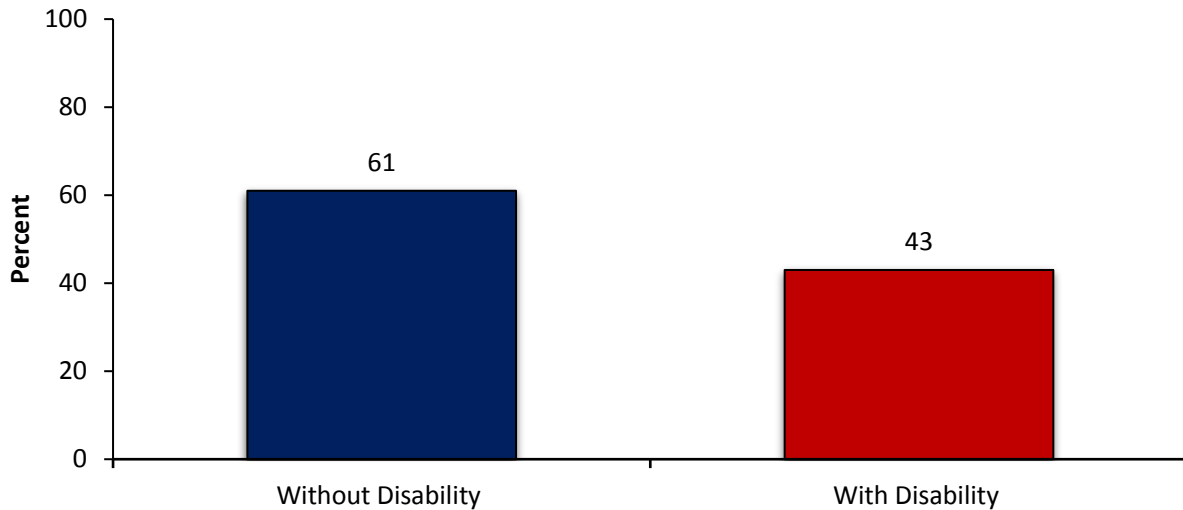
Figure 27: Prevalence of Smoking by Disability, BRFSS, 2008-2014



Alcohol

Figure 28 illustrates the prevalence of alcohol use by disability. Iowans with disabilities were less likely to drink than their non-disabled counterparts. Approximately 43 percent of Iowans with disabilities used alcohol in the past 30 days compared to 61 percent of Iowans without disabilities (Figure 28).

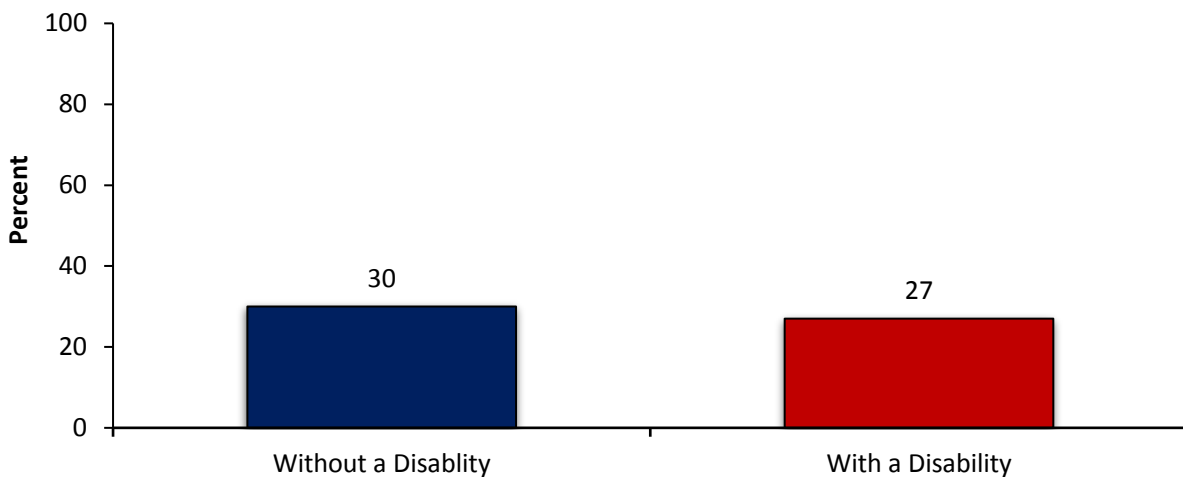
Figure 28: Prevalence of Alcohol Use by Disability, BRFSS, 2008-2014



Physical Activity

Figure 29 illustrates the level of participation in aerobic physical activity by disability. Iowans with disabilities were less likely to engage in aerobic physical activity. Between 2008-2014, 27 percent of Iowans with disabilities engaged in any aerobic physical activity compared to 30 percent of people without disabilities (Figure 29).

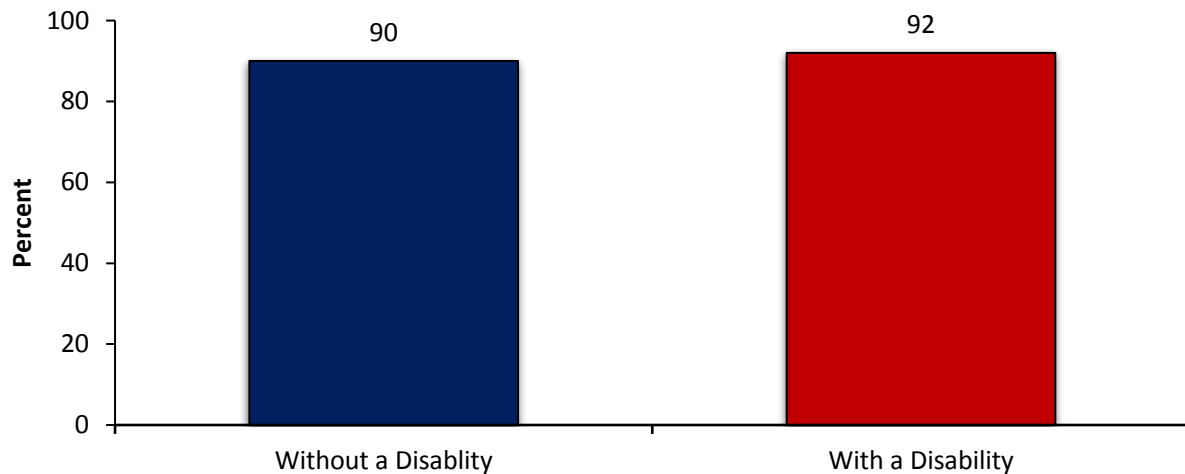
Figure 29: Percent of Aerobic Physical Activity by Disability, BRFSS, 2008-2014



Access to Health Care

Figure 30 illustrates health insurance coverage by disability status. In Iowa, between 2008-2014, approximately 92 percent of Iowans with disabilities had health insurance coverage compared to 90 percent of Iowans without disabilities (Figure 30).

Figure 30: Health Insurance Coverage by Disability Status, BRFSS, 2008-2014



Health Status

Figure 31 illustrates general health status by disability status. Between 2008-2014, when asked how their health was in general, 39 percent of Iowans with disabilities and 6 percent of Iowans without disabilities reported that it was fair or poor (Figure 31).

Figure 31: Percent of Iowans with Fair or Poor General Health Status by Disability Status, BRFSS, 2008-2014

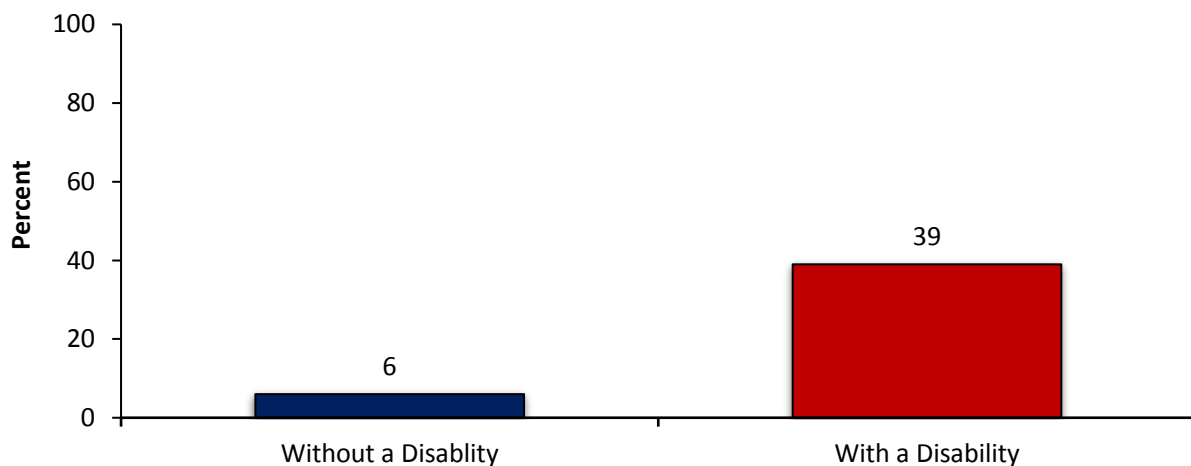


Figure 32 illustrates the average days of poor physical health per month by disability status. In Iowa, between 2008-2014, people with disabilities experienced an average of 10 days of poor physical health per month; people without disabilities experienced an average of two days of poor physical health per month. (Figure 32).

Figure 32: Average Number of Days of Poor Physical Health per Month by Disability Status, BRFSS, 2008-2014

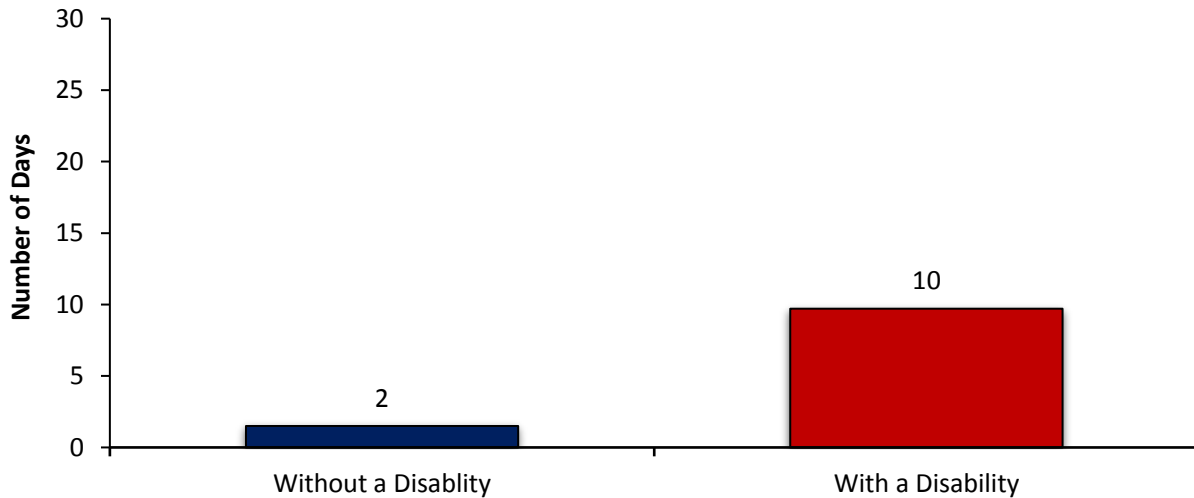


Figure 33 illustrates the average number of days lowans reported that their mental health was not good by disability status. lowans with disabilities were more likely to report more days with mental health not good compared to their counterparts. Between 2008-2014, lowans with disabilities reported an average six days of poor mental health per month compared to lowans without disabilities who reported an average of two days of poor mental health per month (Figure 33).

Figure 33: Average Number of Days Mental Health not Good by Disability Status, BRFSS, 2008-2014

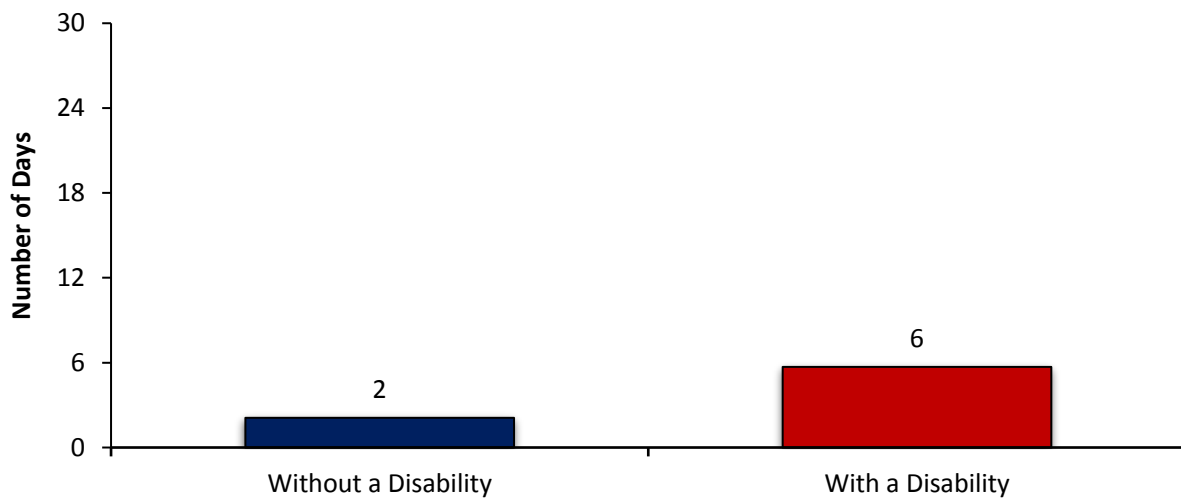


Figure 34 illustrates disability prevalence by having at least one day of poor physical health per month. Iowans with disabilities were more likely to report having at least one day of poor physical health per month. Between 2008-2014, 38 percent of Iowans who reported at least one day of poor physical health had a disability, compared to 11 percent of Iowans who did not report any days of poor physical health (Figure 34).

Figure 34: Disability Prevalence by Having at Least One Day of Poor Health per Month, BRFSS, 2008-2014

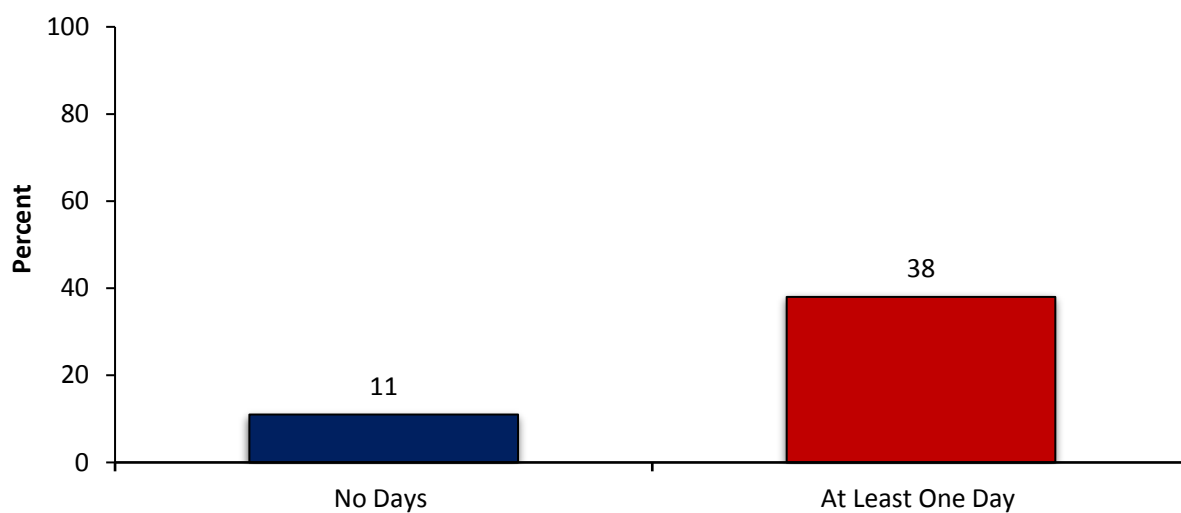


Table 2 shows the percent of Iowans with a disability who have various comorbidities, and engage in various health behaviors by region. Over 90 percent of Iowans with disabilities in all six of the regions wore seat belts. In these six regions, over 70 percent of Iowans with disabilities reported that they had at least one healthcare provider. Similar percentages of Iowans with disabilities reported fair or poor health in central, northeast, northwest and eastern regions of Iowa. Binge drinking was highest among Iowans with disabilities in the central region (21.3 percent) and lowest in the northwest region (9.7 percent).

Table 2: Percent Iowans with a Disabilities by Region and State, BRFSS, 2013-2014

Variable	Central	Northeast	Northwest	Southwest	Southeast	Eastern	State
Fair or poor health	34.4	32.2	31.0	40.6	48.8	36.2	36.8
Coronary Heart Disease	7.8	8.4	6.8	7.8	10.5	6.9	7.8
Stroke	3.5	5.4	3.1	6.6	9.3	6.1	5.3
Arthritis	46.0	45.5	38.8	55.5	46.5	44.2	45.8
Current Smoking	28.4	35.6	27.4	35.9	36.6	29.6	30.9
Binge Drinking	21.3	13.0	9.7	18.4	12.5	23.2	19.0
Physical Activity	66.9	57.6	63.0	62.5	57.6	69.3	65.3
Wear Seat Belt	93.5	95.9	91.8	94.0	91.4	95.7	94.0
No Healthcare Coverage	9.9	13.0	11.5	9.4	13.3	14.9	12.2
No Doctor Because of Cost	20.8	22.0	15.2	28.9	22.0	17.9	20.4
Flu Shot (Adults 65+)	67.4	72.0	67.5	75.6	75.1	69.9	70.5
Pneumonia Shot	40.5	41.4	32.9	37.1	35.6	42.4	39.7
Diabetes	16.8	14.3	10.8	17.1	17.1	15.0	15.5
Obese	42.4	45.3	45.4	46.1	43.6	40.1	42.7
One Healthcare Provider	76.0	77.7	75.8	76.4	64.6	70.5	73.1
High Blood Pressure	42.8	44.0	42.5	42.4	45.3	39.3	42.1
Colonoscopy	68.9	75.1	72.8	62.2	67.8	77.0	71.9

Table 3 illustrates the prevalence of disability by county. The disability rates varied by county. As shown in table 3, disability rates ranged from a high of 36.8 percent (Montgomery) to a low of 10.6 percent (Bremer). Counties with the highest rates of disability are Montgomery, Fremont, Mills, Wapello and Union (Table 3). Counties with the lowest rates of disability are Bremer, O'Brien, Ringgold and Sioux.

Table 3: Disability Prevalence by County, BRFSS, 2005-2014

County	Percent with Disability	County	Percent with Disability	County	Percent with Disability
Adair	22.6	Floyd	19.6	Monona	25.2
Adams	24.9	Franklin	24.3	Monroe	25.4
Allamakee	18.3	Fremont	36.2	Montgomery	36.8
Appanoose	28.1	Greene	15.5	Muscatine	19.0
Audubon	26.1	Grundy	26.3	O'Brien	12.6
Benton	18.9	Guthrie	17.3	Osceola	20.2
Black Hawk	22.2	Hamilton	27.6	Page	22.1
Boone	18.8	Hancock	26.8	Palo Alto	23.2
Bremer	10.6	Hardin	18.8	Plymouth	22.5
Buchanan	19.0	Harrison	24.1	Pocahontas	21.6
Buena Vista	19.0	Henry	21.9	Polk	21.8
Butler	16.5	Howard	18.6	Pottawattamie	29.7
Calhoun	28.4	Humboldt	18.3	Poweshiek	24.5
Carroll	18.9	Ida	18.0	Ringgold	14.8
Cass	24.0	Iowa	20.3	Sac	24.7
Cedar	18.1	Jackson	17.2	Scott	22.7
Cerro Gordo	24.8	Jasper	22.5	Shelby	20.4
Cherokee	22.4	Jefferson	26.4	Sioux	12.4
Chickasaw	17.6	Johnson	19.0	Story	16.5
Clarke	26.7	Jones	20.8	Tama	19.6
Clay	21.0	Keokuk	22.5	Taylor	25.9
Clayton	15.0	Kossuth	16.7	Union	31.3
Clinton	23.3	Lee	20.0	Van Buren	30.3
Crawford	19.9	Linn	20.8	Wapello	31.9
Dallas	18.7	Louisa	24.2	Warren	21.1
Davis	18.7	Lucas	27.8	Washington	21.4
Decatur	17.6	Lyon	16.8	Wayne	15.4
Delaware	16.4	Madison	23.5	Webster	23.1
Des Moines	23.3	Mahaska	24.8	Winnebago	16.5
Dickinson	20.4	Marion	17.9	Winneshiek	19.6
Dubuque	19.8	Marshall	19.4	Woodbury	24.2
Emmet	22.0	Mills	32.8	Worth	23.7
Fayette	23.5	Mitchell	17.3	Wright	27.8

Appendix A: Data Sources

Data Source	Website
Iowa Behavioral Risk Factor Survey (BRFSS)	http://idph.iowa.gov/brfss
American Community Survey (ACS)	https://www.census.gov/programs-surveys/acs/

Appendix B: Definitions

Ambulatory Disability (as defined by ACS): In the ACS, individuals 5 or more years old who responded "yes" when asked if they had serious difficulty walking or climbing stairs.

American Community Survey (ACS): The American Community Survey is a large, continuous demographic survey conducted by the U.S. Census Bureau that will provide accurate and up-to-date profiles of America's communities every year. Annual and multi-year estimates of population and housing data are generated for small areas, including tracts and population subgroups. This information is collected by mailing questionnaires to a sample of addresses.

Arthritis: Arthritis is the name given to a group of more than 100 different rheumatic diseases and conditions that result in pain and reduction of functionality in and around the joints. Arthritis may be caused by a wearing down of cartilage, a change in bone composition or inflammation in the joints.

Behavioral Risk Factor Surveillance Survey (BRFSS): The Behavioral Risk Factor Surveillance System is a state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. BRFSS was established in 1984 by the Centers for Disease Control and Prevention (CDC); data are collected monthly in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. More than 350,000 adults are interviewed each year, making the BRFSS the largest telephone health survey in the world. States use BRFSS data to identify emerging health problems and establish track health objectives, and develop and evaluate public health policies and programs. Many states also use BRFSS data to support health-related legislative efforts.

Cognitive Disability (as defined by ACS): In the ACS, individuals who indicated "yes" when asked if due to a physical, mental, or emotional condition, they had serious difficulty concentrating, remembering, or making decisions.

Coronary Heart Disease (CHD): Disease of the heart caused by atherosclerotic narrowing of the coronary arteries likely to produce chest pain (angina pectoris) or heart attack.

Disability Status (as defined by ACS): The U.S. Census Bureau used six questions to identify people with disabilities. A response of "yes" to any one of the questions indicates that the person in question has a disability-vision, hearing, cognitive, ambulatory, self-care, and independent living. However, the questions related to cognitive, ambulatory, self-care and independent living are not used to identify disability in individuals less than 5 years old, and the question related to independent living is not used to identify disability in individuals less than 18 years old.

Disability Status (as defined by BRFSS): An individual is classified as having a disability based on answers to the following questions: (1) Are you limited in any way in any activities because of physical, mental, or emotional problems? and (2) Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone (include occasional use or use in certain circumstances)?

Earnings (as defined by ACS): Regularly received income from salaries/wages, self-employment or both, for people ages 16 or older before deductions as personal income taxes, Social Security, bond purchases, union dues and Medicare.

Employment Status (as defined by ACS): In the ACS, individuals were asked a series of questions designed to identify their status. Based on the answers, individuals were classified into one of five groups: (1) people who worked at any time during the reference week; (2) people on temporary layoff who were available for work; (3) people who did not work during the reference week but who had jobs or businesses from which they were temporarily absent (excluding layoff); (4) people who did not work during the reference week, but who were looking for work during the last four weeks and were available for work during the reference week; and (5) people not in the labor force. The employment status data shown in American Community Survey tabulations relate to people ages 16 or older.

Hearing Disability (as defined by ACS): In the ACS, individuals who indicated "yes" when asked if they were deaf or ... [had] serious difficulty hearing.

High Blood Pressure: High blood pressure is a condition in which blood pressure levels are above the normal range. Blood pressures of 120-139 / 80-89 mm Hg are considered prehypertension. Blood pressure is considered high if it is 140/90 mm Hg or higher. Long-standing, uncontrolled high blood pressure increases the risk for heart attack, angina, stroke, chronic kidney failure and peripheral artery disease (PAD). High blood pressure may also increase the risk of developing fatty deposit in arteries (atherosclerosis). The risk of heart failure also increases due to the increased workload that high blood pressure places on the heart.

Independent Living Disability as defined by (ACS): In the ACS, individuals who indicated "yes" when asked if due to a physical, mental, or emotional condition, they had difficulty doing errands alone such as visiting a doctor's office or shopping.

Obese (as defined by BRFSS): The condition where a person has a body mass index greater than 30.

Poverty Rate: Percent of the population who are determined to be in poverty. The Office of Management and Budget in Statistical Policy Directive 14 sets the standards for which poverty is calculated. The U.S. Census Bureau uses a set of dollar value thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the dollar value of the appropriate threshold, then that family and every individual in it are considered to be in poverty.

Self-Care Disability: In the ACS, individuals ages 5 or older who answered "yes" when asked, does this person have difficulty dressing or bathing?

Smoking (as defined by BRFSS): Respondents were asked about smoking: Have you smoked at least 100 cigarettes in your entire life? and "Do you now smoke cigarettes every day, some days, or not at all? Respondents who reported smoking at least 100 cigarettes in their lifetime and who, at the time of survey, smoked either every day or some days were defined as a current smoker.

Stroke: Stroke is a disease that affects the arteries leading to and within the brain. A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or bursts. When that happens, part of the brain cannot get the blood (oxygen) it needs, so brain cells start to die. Stroke can be caused by either a clot obstructing the flow of blood to the brain (called an ischemic stroke) or by a blood vessel rupturing and preventing blood flow to the brain (called a hemorrhagic stroke).

Visual Disability (as defined by ACS): In the ACS, individuals who indicated "yes" when asked if they were blind or ... [had] serious difficulty seeing even when wearing glasses.

References

Centers of Disease Control and Prevention. (2013). Key findings: Prevalence of disability and disability type among adults, United States – 2013. Retrieved from https://www.cdc.gov/ncbddd/disabilityandhealth/documents/DHDS_FactSheet_2016.pdf

Gettens, J., Lei, P & Henry, A. (2015). Using American Community Survey Disability data to improve the Behavioral Risk Factor Surveillance System accuracy. Retrieved from <https://www.mathematica-mpr.com/our-publications-and-findings/publications/using-american-community-survey-disability-data-to-improve-the-behavioral-risk-factor-surveillance>